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RAB11A Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AW5646

Specification

RAB11A Antibody - Product Information

Application	**IHC-P, WB,E**
Primary Accession	P62491
Other Accession	P62490, P62492, Q52NJ1, Q5R9M7, P62493, P62494
Reactivity	**Human, Mouse, Rat**
Predicted	**Pig, Rabbit**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**H=24,18;R=24;M=24 KDa**
Isotype	**IgG1,k**
Antigen Source	**HUMAN**

RAB11A Antibody - Additional Information

Gene ID 8766

Antigen Region
1-216

Other Names
Ras-related protein Rab-11A, Rab-11, YL8, RAB11A, RAB11

Dilution
IHC-P~~1:25
WB~~1:4000

Target/Specificity
This RAB11A antibody is generated from a mouse immunized with a purified recombinant protein of human RAB11A.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
RAB11A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

RAB11A Antibody - Protein Information

Name RAB11A (HGNC:9760)

Function

The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (PubMed:15601896, PubMed:15689490, PubMed:17462998, PubMed:19542231, PubMed:20026645, PubMed:20890297, PubMed:21282656, PubMed:26032412). The small Rab GTPase RAB11A regulates endocytic recycling (PubMed:20026645). Forms a functional Rab11/RAB11FIP3/dynein complex that regulates the movement of peripheral sorting endosomes (SE) along microtubule tracks toward the microtubule organizing center/centrosome, generating the endosomal recycling compartment (ERC) (PubMed:20026645). Acts as a major regulator of membrane delivery during cytokinesis (PubMed:15601896). Together with MYO5B and RAB8A participates in epithelial cell polarization (PubMed:21282656). Together with Rabin8/RAB3IP, RAB8A, the exocyst complex, PARD3, PRKCI, ANXA2, CDC42 and DNMBP promotes transcytosis of PODXL to the apical membrane initiation sites (AMIS), apical surface formation and lumenogenesis (PubMed:20890297). Together with MYO5B participates in CFTR trafficking to the plasma membrane and TF (Transferrin) recycling in nonpolarized cells (PubMed:17462998). Required in a complex with MYO5B and RAB11FIP2 for the transport of NPC1L1 to the plasma membrane (PubMed:19542231). Participates in the sorting and basolateral transport of CDH1 from the Golgi apparatus to the plasma membrane (PubMed:15689490). Regulates the recycling of FCGRT (receptor of Fc region of monomeric IgG) to basolateral membranes (By similarity). May also play a role in melanosome transport and release from melanocytes (By similarity). Promotes Rabin8/RAB3IP preciliary vesicular trafficking to mother centriole by forming a ciliary targeting complex containing Rab11, ASAP1, Rabin8/RAB3IP, RAB11FIP3 and ARF4, thereby regulating ciliogenesis initiation (PubMed:25673879, PubMed:31204173). On the contrary, upon LPAR1 receptor signaling pathway activation, interaction with phosphorylated WDR44 prevents Rab11-RAB3IP-RAB11FIP3 complex formation and cilia growth (PubMed:31204173). Participates in the export of a subset of neosynthesized proteins through a Rab8-Rab10-Rab11-endososomal dependent export route via interaction with WDR44 (PubMed:32344433).

Cellular Location

Cell membrane; Lipid-anchor. Endosome membrane. Recycling endosome membrane; Lipid-anchor. Cleavage furrow. Cytoplasmic vesicle, phagosome. Cytoplasmic vesicle membrane. Golgi apparatus. Golgi apparatus, trans-Golgi network. Cytoplasmic vesicle. Note=Localized to WDR44-positive endosomes and tubules (PubMed:32344433). Translocates with RAB11FIP2 from the vesicles of the endocytic recycling compartment (ERC) to the plasma membrane (PubMed:11994279). During interphase, localized in vesicles continuously moving from peripheral sorting endosomes towards the pericentrosomal ERC (PubMed:20026645). Localizes to the cleavage furrow (PubMed:15601896). Colocalizes with PARD3, PRKCI, EXOC5, OCLN, PODXL and RAB8A in apical membrane initiation sites (AMIS) during the generation of apical surface and lumenogenesis (PubMed:20890297) Recruited to phagosomes containing S.aureus or

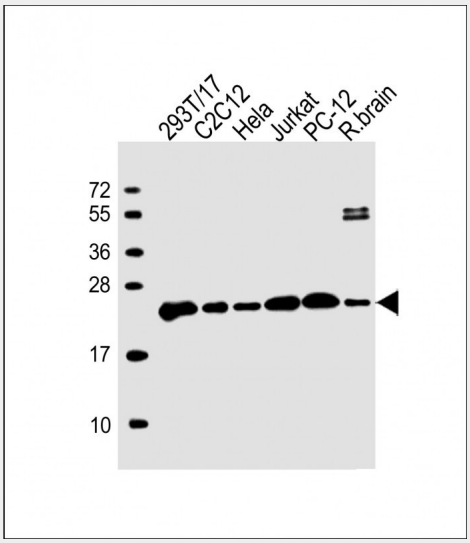
M.tuberculosis (PubMed:21255211). Localized to rhodopsin transport carriers when interacting with RAB11AFIP3 and ASAP1 in photoreceptors (PubMed:25673879). Colocalizes with RAB11AFIP1 on punctate vesicles (PubMed:26032412).

RAB11A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RAB11A Antibody - Images



All lanes : Anti-RAB11A Antibody at1:4000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: C2C12 whole cell lysate Lane 3: Hela whole cell lysate Lane 4: Jurkat whole cell lysate Lane 5: PC-12 whole cell lysate Lane 6: rat brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 24 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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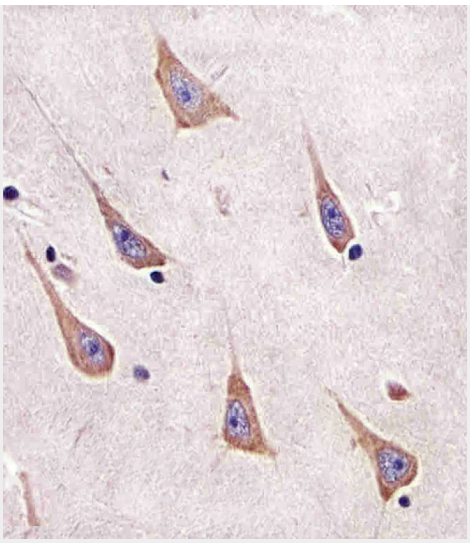

AW5646 staining RAB11A in human brain sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

RAB11A Antibody - Background

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RAB11A Antibody - References

Drivas G.T.,et al.Oncogene 6:3-9(1991).
Zahraoui A.,et al.Submitted (NOV-1990) to the EMBL/GenBank/DDBJ databases.
Gromov P.S.,et al.FEBS Lett. 429:359-364(1998).
Puhl H.L. III,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.